

# DT SERIES, 4-WIRE

## DC Current Transducers

### Solid-core Models

DT Solid-core Series DC Current Transducers combine a Hall effect sensor and signal conditioner into a single package for use in DC current applications up to 200 A. The DT Series DC Current Transducers unipolar and bipolar models have jumper-selectable current input ranges and industry standard 0–20 mA, 4–20 mA, 0–5 VDC or 0–10 VDC outputs. Solid-core models are offered with ranges as low as 0–5 amps, and up to 0–200 amps.

#### DC Current Transducer Applications

##### Battery Banks

- Monitor load current.
- Monitor charging current.
- Verify operation.

##### Transportation

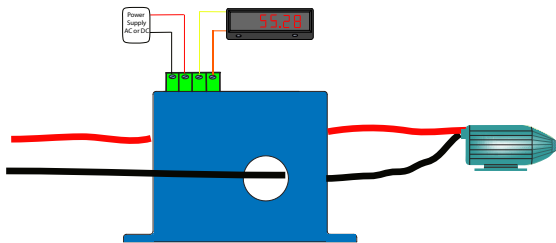
- Measure traction power or auxiliary loads.

##### Welding Processes

- Measure the current used while welding.
- Log processing time and number of operations.

##### Photovoltaic Panels

- Monitor panel or string current output.
- Monitor combiner box output.



Use a DT sensor over one lead to a DC motor to measure the current used. Over normal readings mean a jam or a bearing failure, and under normal current means a belt or coupling may have broken. The output can also be used to measure time of use to help with maintenance scheduling.



#### DC Current Transducer Features

##### Single Range or Three Jumper-selectable Ranges

- Reduces set-up time.
- Reduces inventory.
- Eliminates zero and span pots.

##### Isolation

- Output is magnetically isolated from the input for safety.
- Eliminates insertion loss (voltage drop).

##### Internal Power Regulation

- Works well, even with unregulated power.
- Cuts installation cost.

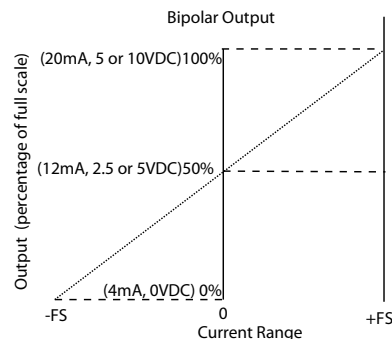
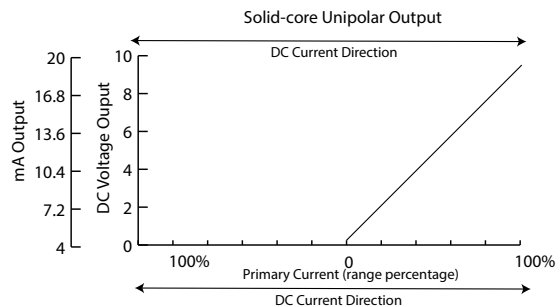
##### Split-core Design/Built-in Mounting Brackets

- Makes installation a snap.

##### UL/cUL and CE Approved

- Accepted worldwide.

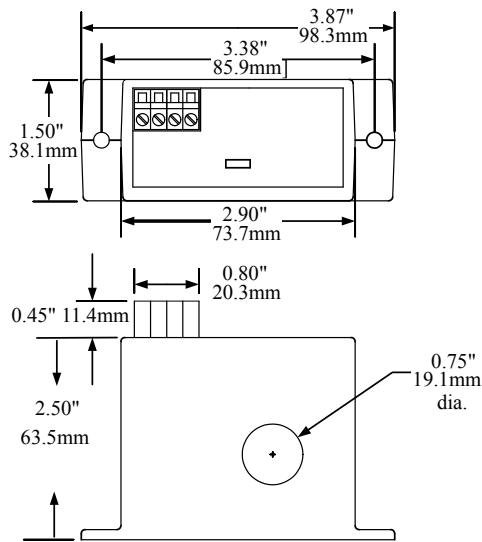
#### DC Current Transducer Output



**OEMs** Test & Evaluation Units for OEMs  
Free program expedites evaluation process. See page 3 for details.

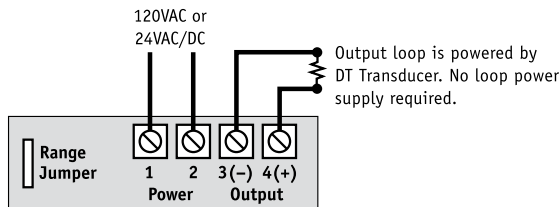
DC Current Transducer Dimensions

FL Case



DC Current Transducer Connections

DT Series Unipolar and Bipolar Output Models



Notes:  
 Deadfront captive screw terminals.  
 12–22 AWG solid or stranded.  
 Observe polarity.

DC Current Transducer Specifications

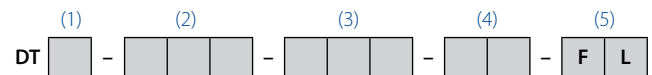


<b>Power Supply</b>	• 120 VAC (108–132 V) solid-core only • 24 VAC/DC (22–26 V) solid-core only
<b>Power Consumption</b>	2 VA
<b>Output Signal</b>	• 0–20 mA, 4–20 mA, 0–5 VDC, 0–10 VDC • ±10 VDC (Bidirectional models only)
<b>Output Limit</b>	• 0–20 mA, 4–20 mA: 23 mA • 0–5 VDC: 5.75 VDC • 0–10 VDC: 11.5 VDC
<b>Output Impedance</b>	• 0–20 mA, 4–20 mA: 500 max. • 0–5 VDC: 25 KΩ min. • 0–10 VDC: 50 KΩ min.
<b>Accuracy</b>	1.0% FS
<b>Repeatability</b>	1.0% FS
<b>Response Time</b>	100 ms average
<b>Frequency Range</b>	DC
<b>Isolation Voltage</b>	UL listed to 1270 VAC, tested to 3 kV
<b>Input Range</b>	0–200 A max
<b>Case</b>	UL94 V-0 Flammability Rated
<b>Environmental</b>	-4 to 122°F (-20 to 50°C) 0–95% RH, non-condensing
<b>Listings</b>	UL/cUL, CE

DC Current Transducers

DC Current Transducer Ordering Information

Sample Model Number: DT2-420-24U-U-FL  
 DC current transducer, 0–100/150/200 A range, 4–20 mA output, 24 VAC/DC powered, unipolar polarity, solid-core case. (DIN rail adapters are included)



(1) Full Scale Range

0	5, 10, 20 A
1	50, 75, 100 A
2	100, 150, 200 A

(2) Output Signal

020	0–20 mA
420	4–20 mA
005	0–5 VDC
010	10 VDC

(3) Power Supply

24U	+24 VAC/DC
120	120 VAC

(4) Output Polarity

U	Unipolar (output with current in one direction only)
BP	Bipolar

(5) Case Style

FL	Solid-core
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